

Remarks

Claims 1-11 and 15-23 are pending in this action. Claims 1-11, 17 and 19 are objected to. Claims 11 and 15 stand rejected. Claims 1, 16 and 18 contain allowable subject matter. By this amendment claim 15 has been canceled. Further, by this amendment claims 1, 16, 18, 21 and 22 have been amended and reconsideration thereof is respectfully requested.

Claim Objections

The Examiner objected to claims 1-11, 17 and 19 stating that an antecedent basis was required for the limitations "insulator layer" and "edge perimeter," recited in claims 1-3. Claim 1 has been amended to overcome this objection by describing the insulator recited in claim 1 as an "insulator layer." Claim 1 has been amended to also include a further limitation describing an edge perimeter. Claim 2 recites the limitation of an insulator layer and claims 2 and 3 recite the limitation of an edge perimeter. Applicants respectfully submit that the Examiner's objection has been overcome and that claim 1 and claims 2-11 that depend on claim 1 are in condition for allowance.

The Examiner also objected to claims 16 and 18 as being dependent upon rejected base claim 15, but indicated that claims 16 and 18 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Accordingly, claims 16 and 18 have been so amended, and Applicants respectfully submit that claims 16 and 18 are now in condition for allowance.

Claim Rejections - 35 U.S.C. § 112, first paragraph

The Examiner rejected claim 11 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner stated that claim 11 contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filed, had possession of the claimed invention, indicating that the specification failed to disclose that the second width of the second finger is unequal to the first width of the first finger as recited in claim 11. Applicants respectfully submit that support for an embodiment describing unequal finger widths is shown by a comparison of Figs. 2 and 2A with Figs. 4 and 4A and the accompanying description in paragraphs [30-36] of the Specification. Applicants note that paragraph 30 expressly relates the length of the intersection perimeter to the probability of a successful programming of the antifuse structure at lines 4-8: "The inclusion of fingers 22 in MOS device 10 may increase the length of intersection perimeter 20 over the length of an intersection perimeter for a fingerless device, thus increasing the total amount of thinned oxide where the application of the burn-in voltage is likely to forge a current path, and thereby increasing the likelihood that a programming event will take place successfully."

Moreover, while Figs. 2 and 2A illustrate an active device area with fingers drawn at a minimum width feature size (Spec. Para. 31), the width of the active device may be drawn at a larger, and therefore unequal width, as shown in Fig. 4 and 4A. Although Figs. 4 and 4A are directed to an embodiment wherein the post program resistance is further reduced, the width of active area 14 is shown to be larger than the minimum feature size for the technology. Applicants respectfully submit that it is common practice in the art of custom VLSI circuits to draw fingered devices with unequal widths in excess of the minimum feature size for a specified process technology. This is true regardless of whether the active area contains a single or multiple fingered device.

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Lastly, the Examiner pointed out that Figs. 5 and 5A show a width of each of the fingers 26 of the first conductor is equal to a width of each of the fingers of the second conductor, stating that Applicants cannot assume that it logically or inherently follows that the substantial equality of the finger 22 widths is not a general characteristic of all the embodiments of the present invention. Applicants respectfully submit that Figs. 5 and 5A illustrate an alternate embodiment of the invention wherein the gate and diffusion regions are both drawn with fingered geometries thereby increasing the overall intersection edge length and in turn the reliability of antifuse programming.

Therefore, Applicants respectfully submit that the rejection of claim 11 under 35 U.S.C. § 112, first paragraph has been overcome.

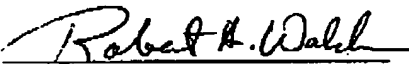
Conclusion

Based on the foregoing, it is respectfully submitted that the pending claims in the subject patent application are in condition for allowance and that the application may be passed to issuance.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application.

Respectfully submitted,

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